



PERSONAL/SURVIVAL EQUIPMENT

NEWSLETTER

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May 1973

SRU-31/P, Packet I, The Medical Unit

One of your responsibilities as a PR is to be able to present to your pilots and aircrews, at periodic intervals, lectures on protective and survival equipment. Whenever possible, you should use the actual item as a training aid to assure that your flight personnel are familiar with it. Some items, such as a fully equipped ejection seat, are a little unwieldy to lug up to the Ready Room on the second deck of the hangar (or even worse, aboard ship); but most of our equipment does not present this type of problem. One of the latter, the SRU-31/P personal survival kit, has replaced the more familiar SEEK-2. It contains about half the number of items that were in the SEEK-2 but provisions are made to install optional items that may be desired. The SEEK-2 was designed with the thought in mind that the potential survivor would require sustenance and medical equipment for a period of from several days to a week. The SRU-31/P is designed for a 24 hour period. The reasoning behind this reduced requirement (in terms of days) is the fact that time to rescue has been drastically reduced.

We haven't had much usable information concerning the contents of the SRU-31/P, that is until now. Thanks to a Navy doctor, LCDR William S. Barry, MC, we have some guidelines to follow. Since the information is lengthy, we will devote two issues of the PSE Newsletter to pass it on. The SRU-31/P is divided into two separate packets. Packet I contains the medical items, and Packet II contains the general survival items.

The medical packet will be discussed in this issue (including optional items which are available). Unless otherwise noted, the shelf life of these items is 5 years.

Medical Unit (Packet I)

Sterile wound coverings are a necessary item in any first aid kit. In this kit there is a roll of gauze bandage, bandaids, and adhesive tape. The adhesive tape provided is a low allergenic type of tape. Because of the possible deteriorating effects of heat and moisture the

SRU-31/P... (cont'd)

tape and bandaids should be checked every 12 months. They should be replaced every two years.

Bacitracin antibiotic ophthalmic ointment is provided for use in eye injuries. It can also be used on burns, cuts or abrasions on other areas of the body. The expiration date of this medication is on both the tube and the cardboard box in which the kit is shipped.

Any injury to the eye will be painful and limit activity, and may result in permanent damage unless treated early. Treatment consists first of removing any foreign object beneath the eyelid or on the surface of the eye. You can use the signal mirror in the general portion of the kit to spot any particles. A small amount of moist gauze held in the tweezers (in the kit) can be used to gently flick away or pick up moist foreign objects (dirt) in the eye. Any object penetrating into the globe of the eye should not be removed except by a doctor. After removal of superficial dirt particles, you should apply bacitracin ointment beneath the eyelid, and the eye should be closed to spread the ointment over its surface. Then tape the eyelid shut to provide a protective cover for the eye.

Most eye injuries are superficial and will heal within 24 to 28 hours. However, any eye injury, no matter how minor it appears, should be seen and treated by a doctor as soon as possible.

Soap is provided in the kit to prevent contamination and infection of any wound, abrasion or burn. Any injury will rapidly progress to a more serious form if infection occurs. You must take care when you use soap along with the benzalkonium chloride, the reddish antiseptic liquid provided in the standard Aircraft First Aid Kit. Both the soap and the liquid antiseptic have surface-acting properties against bacteria, and the combination tends to neutralize the effectiveness of either agent. The soap must be thoroughly rinsed off before applying anything else to the wound.

The medical compartment of the kit contains a tube of combination sunburn lotion and insect repellant. Remember, the time spent in preventive medicine by using this tube is worth a bottle of pills to cure malaria or lotion applied to a painful sunburn. Also apply this lotion to your mosquito headnet and mittens.

The water purification tablets provided should be used with any water that is not boiled. Use two tablets per quart of water, and shake the container well. Wait 20 minutes before you drink the treated water. Before drinking, allow some of the purified water to rinse the lip of the water container. This will wash the area which comes in contact with your lips-- it may have originally been contaminated. These tablets have a two year shelf life.

SRU-31/P... (cont'd)

Pain medication provided is Darvon (propoxyphene hydrochloride) capsules. You may take one capsule every four hours for pain or headache, up to five capsules in a 24-hour period. (As Darvon in the kit becomes overaged, the expiration date is on the package, it is being replaced by aspirin, furnished in aluminum strips. Ed.)

Don't overlook the fact that a headache could be caused by excessive sweating and that you could be close to heat exhaustion. Salt, fluids and rest in a cool, shaded area are indicated for this condition; not pain medication.

Relief for diarrhea and cramps is provided by Lomotil (diphenoxylate hydrochloride) tablets. You can take two of these tablets three or four times a day. Their shelf life is four years.

Remember that prolonged, severe diarrhea can cause tremendous loss of fluids from the body. You can stop eating but potable water must be taken in to compensate for these losses. As the gastrointestinal irritation subsides, the periods between bowel movements increase. The longer the bowel contents remain in the system, the more fluid is absorbed and the firmer the stool becomes.

A waterproof container (condom, prophylactic) is available in the kit. It has a number of survival uses. A post-WWII study, "999 Survived, An Analysis of Survival Experiences in the Southwest Pacific," (ADTIC Publication T-100, 1949) indicates some of these.

The condom, for instance, can be used as a waterproof container to hold matches, pills, or other items which must be kept dry. Several cups of water can be kept in it when it is used as an emergency canteen. To secure the container to a belt and to prevent its rupturing when used as a water carrier, it can be put in the mosquito headnet or mittens. When you are faced with a water survival situation and you are wounded in the hand or foot, you could have a problem keeping bandages dry to prevent maceration of the wounds. Under these conditions, slip the condom over the bandage for a waterproof covering.

A waterproof medication instruction sheet is also in this kit compartment.

Optional Medical Section of Packet I

Discussed below are some of the medical items available for possible inclusion in the optional compartment of the kit. Most of these have more than one use, and the first two items are considered to be important for most situations. The following two items are useful for a combat situation.

SRU-31/P...(cont'd)

1. Camouflaged non-pneumatic (canvas) tourniquet, FSN 6515-323-0565. The tourniquet should be pre-looped so that it can be slipped on using only one hand. This item is more useful as a pressure bandage than as a tourniquet. First, slip the canvas tourniquet over a gauze bandage covering the bleeding wound. Tighten it until the bleeding stops, then loosen it slightly. If the pressure bandage is applied properly, pulse, color and feeling in the extremity distal to the pressure bandage should be normal.

This item should be used as an actual tourniquet only for severe uncontrollable arterial bleeding (bright red, pulsing blood unaffected by constant pressure applied over a bandage). Once the tourniquet is applied, it should not be removed except by a doctor. Loss of the limb or gangrene may result if the tourniquet is left on too long. Precautions in using a tourniquet are provided in the first aid information on the space blanket.

Another use for the canvas tourniquet is as an emergency belt to carry survival equipment. Such equipment could include the survival packets and water canteen which are designed to be carried on a belt.

2. Beef bouillon cubes. Salt tablets and bouillon cubes which were provided in the SEEK-2 kit have been eliminated. Yet the bouillon cubes can provide (a) necessary salt to prevent heat cramps, heat exhaustion, or heat stroke, (b) seasoning for any gathered food, and (c) a food supplement. As with salt tablets, the cubes should only be used when sufficient fresh water is available.

3. Cold climate pigmented chapstick, FSN 8510-270-0017. Normally, chapstick is used to prevent chapped or sunburned lips. It also provides an important combat function-- you can use it as a small, soft camouflage stick to break up facial contours and tone down the skin color on hands and face.

4. Camouflaged gauze bandage, FSN 6510-200-3180. The white gauze bandage in the kit could prove detrimental in a combat or evasion situation. This tan gauze can replace or supplement the white gauze provided the situation warrants it.

5. Sodium bicarbonate and sodium chloride in a 4.5 gm packet, FSN 6505-663-2636. When dissolved in water, this provides a physiologic solution which can be taken orally to help prevent shock. No liquids or fluids should be given to any unconscious person.

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Life Raft Sea Anchors

A tear sheet (from NAVAIR 13-1-6.1) was submitted to the Naval Air Development Center requesting information on the various sea anchors used with the different multi-place life rafts. It was suggested

that the requested information be included in the Flotation Equipment Manual.

ASO Publication, Section E0088 (MILSTRIP Ordering No. 0533-400-0088 of Dec 70) currently gives all available stock and part numbers for the various sea anchors.

As a result of the submission of the tear sheet, the requested information will be included in the next change to the NAVAIR 13-1-6.1 Manual.

As has been pointed out in past issues of the PSE Newsletter, the use of the Tear Sheet Form (from the back of the NAVAIR 13-1-6 series manuals) to report suspected deficiencies or to seek information related to the content of the various manuals is one of several ways to get the job done.

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The Demise Of A Basic Rule

The Naval Air Development Center (NAVAIRDEVCCEN) received the commendation (in the form of a Tear Sheet) that instructions for packing survival items in equipment containers and raft pockets be included in either the NAVAIR 13-1-6.1 (Inflatables Equipment Manual) or NAVAIR 13-1-6.3 (Survival Kits and Items Manual). In addition, it was further recommended that the survival items be lashed together to prevent loss in an emergency situation.

The Inflatables Equipment Manual (as of 15 August 1971) contains new survival equipment lists which significantly reduces the bulk of multi-place life raft survival equipment. As a result, the requirement for the emergency equipment container has been deleted and all equipment is now packed in accessory equipment containers or raft pockets, as specified in the manual.

NAVAIR 13-1-6.1 does not provide detailed instructions for arrangement of equipment because there is sufficient space for all items and no problem should be encountered in obtaining a neat pack. Also, an exact arrangement of survival items would not improve equipment accessibility in a survival situation.

As for lashing survival equipment together in multi-place raft containers, the accessory container is secured by cord to the raft life-line during packing and a 50 foot cord is provided for securing items taken out in actual use. Additionally, lashing all equipment together in the accessory container often results in entanglement and lessens accessibility in a survival situation. Therefore, instructions for survival equipment placement and lashing will not be included in the NAVAIR 13-1-6.1

One man life rafts will be handled a little differently. The

The Demise... (cont'd)

Naval Air Development Center will include in the next change to the Inflatables Equipment Manual general instructions and suggestions for arrangement for survival equipment in rigid seat survival kits (RSSKs) because of limited packing space available.

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LPA-2 Collar Pads

A UR received from an Air Station AIMD reported receiving four LPA-2 life preservers without the foam rubber collar pads installed.

Removal of the collar pad was one of several engineering improvements incorporated into production contract DSA700-70-C-9561, commencing with life preserver Serial No. 641246. All the LPA-2s noted in the reporting UR were of a higher serial number and therefore did not include the foam collar pad.

Pad removal resulted from softening of the neck area of the LPA-2 and provided additional space within the container with a minimal sacrifice of potential comfort during inflation.

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Errors To Avoid

The following is a compilation of maintenance/manufacture errors from selected URs we have recently received involving aviation life support equipment:

- . An NB-11 inducted into an AIMD (from another aviation activity) for inspection and repack was noted to have the following discrepancies:
 - a. The spreader gun was not cocked.
 - b. The spreader gun cartridge was not torqued (was only finger tight).
 - c. The spreader gun cartridge was not marked IAW existing instructions.

Non-compliance with existing maintenance instructions as well as improper CDI procedures were noted. It was recommended that all spreader guns serviced by the negligent activity be submitted to a one-time inspection.

. An NES-8B inducted into an AIMD was found to have a shot bag enclosed in the canopy. The shot bag was located about ten inches from the skirt hem. The activity having custody of the subject parachute could find no record of a parachute history card. The basic rule of always inventorying packing tools after packing/rigging a parachute still applies and could have prevented this error.

Errors...(cont'd)

. Two LPA-2s failed calendar inspection because of cuts on the snap hook attachment webbing at the neck lobes. Cutting of the attachment webbing apparently caused by rough edges on the inside of the snap hook ring. (IACSB No. 333 requires a one-time inspection to head off this problem.)

. An LPA-1 that had undergone two functional tests and four regular inspections was being inflated for an exhibit when the collar lobe failed to inflate upon actuation. Inspection revealed metal shavings in the valve stem and removable check valve preventing the flow of CO₂ into the bladder. It was suspected that the shavings were left by the manufacturer of the check valve. The shavings were removed and the LPA-1 functionally tested several times with no further problems.

. When a RSSK-6 seat kit assembly was inducted into an AIMD for check test, it was discovered that the URT-33 radio contained a leaking battery. Upon trying to remove the battery from the unit, the radio was damaged due to the extrication forces required. Cause of leakage was unknown. An inspection of all URT-33 assemblies was recommended to check for possible leakage.

. During a P-3 NATOPS checkflight, inflight drill, the parachute ripcord pins of the AN/CRT-3A emergency radio (Gibson Girl) were inadvertently pulled. Investigation revealed that the shroud lines had been cut and the canopy had been removed. Rags had been neatly folded and packed into the parachute container and the ripcord pins replaced. It was recommended that the AN/CRT-3A be deleted from the P-3A/B aircraft inventory and the AN/PRT-5 radio be added to the life raft assembly, as in the P-3C.

. During a normal day FAM flight, the oxygen low pressure warning light began to light when the pilot inhaled. The pilot experienced difficulty breathing for the remainder of the flight. Investigation, subsequent to the flight, revealed that the LOX switch was clogged with debris, causing a restricted air flow. It was recommended that an inline filter be incorporated.

. A P-3 activity received an MD-1 oxygen regulator from supply with a 2,000 psi gage installed instead of the required 500 psi gage. The probable cause of this error is as follows: The MD-1 regulator should be equipped with a 0-500 psi gage and the MD-2 (used with high pressure systems) should have the 0-2000 psi gage. Due to the two regulators being physically identical except for scale readings and part numbers the wrong gage can be installed if strict compliance with existing directives are not observed. A similar problem resulting in damage had previously reported when a MD-1 (low pressure) regulator was installed in lieu of the MD-2 (hi-pressure) regulator on a high pressure system. All affected maintenance personnel should be made aware of this potential hazard. Corrective measures have been recommended.

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Errors...(cont'd)

. During a calendar check of a RSSK-8A survival kit, the oxygen hose assembly was found to be leaking. Four additional hoses from seven other RSSK-8As from aircraft undergoing conditional evaluation at the reporting NARF leaked in the area just above the molded section where the hose attaches to the survival kit. The suspected cause was believed due to repeated hose flexing at the area adjacent to the molded rubber section. Leaning the parachute assembly against the molded support/hose during installation/removal of the chute and RSSK kit was believed to be a major contributing factor. It was recommended that care be exercised during installation/removal of the chute/RSSK kit to preclude damage to the hose assembly.

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Interim Aircrew Systems Bulletin No. 328: One-time Inspection of Seat Pan Oxygen Hose (NAVAIRDEVCEM 201315Z Feb 73)

Purpose: To provide a one-time inspection of the seat pan oxygen hose, p/n 33D1341-2 and to check for existing and potential failures.

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Interim Aircrew Systems Bulletin No. 332, Amend. 1: JW-3B Ejection Seat Escape System Unions; inspection of (NavAirSysCom 270049Z Mar 73)

This amendment makes certain corrections to the basic bulletin. Aircraft previously inspected under the basic bulletin need not be reinspected.

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Interim Aircrew Systems Bulletin No. 333: Life Preserver, LPA Series; inspection of snap hook on (NavAirDevCen 031639Z Apr 73)

This bulletin provides for a one-time inspection of the collar restraint snap hooks on all LPA series life preservers in order to:

- a. Detect and remove rough edges from the snap hook casting.
- b. To provide for replacement of restraint webbing when fraying has occurred.

(Ed. note: The above snap hook is procurable under FSN 9Z5340-264-7672.)

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